

REMARKS

This Amendment is filed in response to the Office Action mailed on February 7, 2006 and in connection with the interview. Applicant gratefully acknowledges the interview conducted with Examiner Manav Seth and Supervisor Bhavesh Mehta on May 22, 2006, in which the nexus of the claims and applicability of the prior art were discussed. All objections and rejections are respectfully traversed and reconsideration is respectfully requested.

At paragraphs 5 and 6 of the Office Action, claims 1, 3-5, 11, 12, 18-21, 24, and 28 were rejected under 35 U.S.C. §103 over Anderson et al., US Patent No. 6,567,122, hereinafter Anderson, in view of Luster, US Patent No. 5,715,051, hereinafter Luster.

For a combination to be proper under §103, the references must suggest the combination of both. Anderson only describes a web camera for viewing images. There is no suggestion in Anderson to combine with Luster for teaching a web-based system or hand held device for training a machine vision system. Anderson does not suggest the web camera's use in training, only comparing the pixels of the last two images, taking pictures, and storing images. There is no suggestion or teaching in Anderson of training a machine vision system to detect an error condition or to define predetermined parameters. Additionally, there is no suggestion in Luster of changing a computer stand alone machine vision system into a handheld or web based system because the processing of the machine vision system in Luster is performed by connected computer. In contrast, the

processor in Applicant's machine vision system can detect an error without being connected to the web based system or hand held device based on the conditions taught to the system at an earlier time. (See page 6, lines 6-7 and page 7, lines 1-3). This is a significant and highly desirable feature as it enables the use of simplified remote, stand alone machine vision systems where needed on, for example a production line without any central control or monitoring.

Applicant notes also that Anderson is in a separate field of art from that of Luster. Anderson is not a system meant for teaching which is an essential step of machine vision systems. Therefore, the combination is not proper because Anderson does not suggest use of the camera in a machine vision system, which includes various and particularized machine vision functions including training, pattern recognition, and the like.

Even if combined, Anderson and Luster do not teach or suggest each and every element of the claim as required under §103. Neither Anderson nor Luster teach or suggest Applicant's novel *human/machine interface device is adapted to display the web-browser-compatible image data and information on a plurality of user-selected screens associated with the machine vision tool, the screens being constructed and arranged for selecting functions for training the machine vision system to define measured parameters of the viewed object and at least one of installing, configuring, monitoring, and controlling the machine vision system, and wherein the processing element is adapted to perform a machine vision tool task while the human/machine interface device is disconnected from the communications interface*. This recitation is now present in each of the independent claims 1, 4, 12, 20, and 29 as amended. In further detail, Ap-

licant's invention allows the set up to be from a remote device, but the processing element within the camera system to detect if an error condition (taught at an earlier time) has occurred on its own. The processing element does not require the human/machine interface device to be connected to it because the processing element can process tasks of the machine vision system on its own. With the ability for the processing element of the machine vision system to detect an error condition on its own, it is autonomous in its function. One skilled in the art would clearly comprehend that one hand held device may set up multiple machine visions systems of similar claimed design to run on their own. In contrast, Luster requires the system to be connected to the computer because the processing is performed by the computer. This highly limits the use of Luster, and does not at all suggest the benefits of autonomous, disconnected operation following teaching. Additionally, Anderson does not perform further claimed machine vision tasks such as error checking because Anderson does not have the capability to be taught.

Additionally, there is no suggestion or teaching in Anderson or Luster of Applicant's novel *human/machine interface device that is adapted to display the web-browser-compatible image data and information on a plurality of user-selected screens associated with the machine vision tool, the screens being constructed and arranged for selecting functions for training the machine vision system to define measured parameters of the viewed object and at least one of installing, configuring, monitoring, and controlling the machine vision system*. Applicant's invention allows a user to control and teach the machine vision system from a handheld device or web based system. The hand held device or web based system can be connected directly or through a wire-

less connection. Once the teaching is completed, the user can teach a second machine vision system because the processing element can detect an error condition on its own. There is no suggestion in Luster or Anderson of training a machine vision system through a hand held device or web based system because Luster describes a computer stand alone machine vision system and Anderson only describes a web camera that does not have the capability for a user to teach the camera to detect specific errors.

Accordingly, Anderson and Luster do not teach each and every element, taken singly or in combination, of Applicant's claimed invention because they do not teach *human/machine interface device is adapted to display the web-browser-compatible image data and information on a plurality of user-selected screens associated with the machine vision tool, the screens being constructed and arranged for selecting functions for training the machine vision system to define measured parameters of the viewed object and at least one of installing, configuring, monitoring, and controlling the machine vision system, and wherein the processing element is adapted to perform a machine vision tool task while the human/machine interface device is disconnected from the communications interface*. Accordingly, each of the independent claims 1, 4, 12, 20, and 29, are now believed to be allowable over Anderson and Luster and over other art of record herein. The dependent claims herein should also be allowable as dependent on now-allowable above claims.

Applicant will now briefly address the dependent claims in further detail.

At paragraph 7 of the Office Action, dependent claims 6 and 23 were rejected under 35 U.S.C. §103 as being unpatentable over Anderson in view of Luster, and further in

view of Cadjan, January 2000, publication “Upgrading Novell Client software across the network using acu.exe,” hereinafter Cadjan.

At paragraph 8 of the Office Action, dependent claims 7 and 25 were rejected under 35 U.S.C. §103 as being unpatentable over Anderson in view of Luster, and further in view of Takagi, US Patent No. 6,670,991, hereinafter Takagi, and Bose, US Patent No. 4,975,972, hereinafter Bose.

At paragraph 9 of the Office Action, dependent claims 8, 9, 26 and 27 were rejected under 35 U.S.C. §103 as being unpatentable over Anderson in view of Luster, and further in view of Takagi, and Bose.

At paragraph 10 of the Office Action, dependent claim 10 were rejected under 35 U.S.C. §103 as being unpatentable over Anderson in view of Luster, and further in view of Yu, US Patent No. 6, 804,418, hereinafter Yu.

At paragraph 11 of the Office Action dependent claims 13-15 and 17 were rejected under 35 U.S.C. §103 as being unpatentable over Anderson in view of Luster, and further in view of Nichani, US Patent No. 5,673,334, hereinafter Nichani.

In particular, claims 7 and 25 further claim “*the machine vision tool includes a process that determines an intensity distribution of the image data and that transmits information with respect to the determined intensity distribution*, and wherein the human/machine interface device includes a process for displaying, based upon the information, *a visual representation of the intensity distribution so as to assist in adjusting at least one of lighting intensity, shutter exposure time, lens aperture, and parameters affecting the intensity distribution in the image data*,” which is not shown in Anderson, Luster, Takagi, and Bose, taken singly or in combination. There is no disclosure, teach-

ing, or suggestion of a process for transmitting intensity distribution over the Internet, or a like network.

Therefore, the Applicant believes the application is now in condition for allowance with each of the Examiner's objection and rejection addressed or traversed. The Applicant therefore respectfully requests the Examiner issue a Notice of Allowance at the earliest possible date.

The Applicant earnestly solicits the Examiner to contact the undersigned by telephone call to advance the prosecution of the application in any respect.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,



Shannen C. Delaney
Reg. No. 51,605
CESARI AND MCKENNA, LLP
88 Black Falcon Avenue
Boston, MA 02210-2414
(617) 951-2500